

**REMARKS**

Entry of the foregoing, reexamination and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

As correctly noted in the Office Action Summary, claims 3, 16, 22-29, 34 and 35 were pending. By the present response, claims 16 and 23 have been amended, and claim 35 is cancelled. Thus, upon entry of the present response, claims 3, 16, 22-29 and 34 are pending and await further consideration on the merits.

Support for the foregoing amendments can be found, for example, in at least the following locations in the original disclosure: Figure 2, and the original claims.

Applicants appreciate the courtesies extended to Applicants' representative during the February 17, 2011 interview. The substance of the discussion is incorporated into the amendments and remarks herein and constitutes Applicants' record of the interview.

***CLAIM REJECTIONS UNDER 35 U.S.C. §112***

Claim 35 is rejected under 35 U.S.C. § 112 first paragraph. Although Applicants believe that the features of claim 35 are disclosed in the originally filed Fig. 2, claim 35 is cancelled to expedite prosecution of the application.

***CLAIM REJECTIONS UNDER 35 U.S.C. §102***

Claims 3, 16, 22-29 and 34 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,347,923 to Semmler et al. (hereafter "*Semmler et al.*"). For at least the reasons noted below, this rejection should be withdrawn.

The present invention is directed to a component of a fluid-flow machine. A component constructed according to the principles of the present invention provides both a construction that facilitates inspection as well as reducing the danger of blockage of coolant holes by dust or other debris in the coolant flow. According to the present invention, through a combination of careful sizing and positioning, an inspection access aperture can also serve as a dust discharge aperture, thereby eliminating unnecessary apertures which can lead to undesired loss of cooling medium, thereby resulting in a loss of efficiency of the component. See, e.g., paragraph [0008] of the present specification.

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A component constructed according to the principles of the present invention is set forth in claim 16. Claim 16 recites:

16. *A component of a fluid flow machine, the component comprising:*  
*a blade having a foot portion, and wherein a coolant medium is introduced into the blade through a single passage disposed in the foot portion.*  
*a leading edge and a trailing edge;*  
*a first coolant passage comprising at least one curved flow section configured to curve in a first flow direction to establish coolant medium flow in the first flow direction; and*  
*a second passage, the second passage (i) branching off the coolant passage at the curved flow section and (ii) being arranged to extend in the first flow direction along an uninterrupted flow path which is tangential to the curved flow section; and*  
*a dust discharge aperture in communication with the second passage having a longitudinal axis essentially parallel to an axis of the fluid flow machine, the dust discharge aperture arranged at the trailing edge of the component and dimensioned to enable the introduction of a borescope through the dust discharge aperture.*

*Semmler et al.* is directed to a coolable blade for a gas turbine. *Semmler et al.* teaches a blade construction which provides for additional cooling of the blade tip,

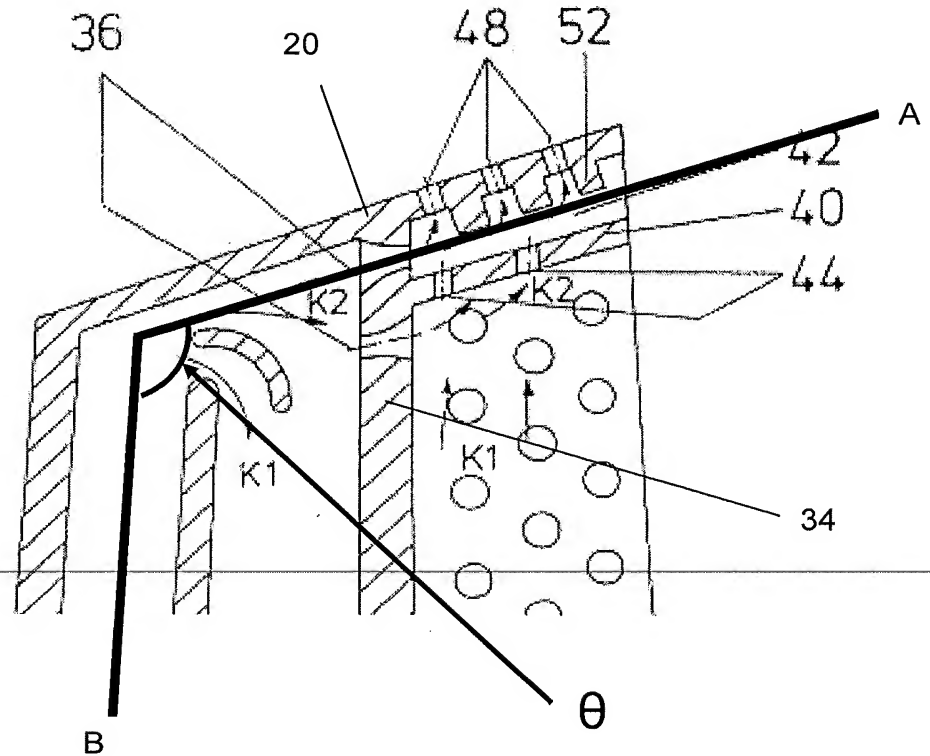
particularly at the trailing edge thereof. However, *Semmler et al.* fails to anticipate the component set forth in claim 16.

Fig. 4 of *Semmler et al.* discloses a tip cooling passage 42 including through holes 44, discharge passages 48 and ribs 52. Thus, the tip cooling passage 42 is not provided with an uninterrupted flow path.

Claim 22 requires, *inter alia*, "the coolant passage comprises a first section through which the cooling medium flows toward the curved flow section, and a second section adjacent the first section through which the cooling medium flows away from the curved flow section," and that "the second passage extends perpendicular to the first section and second section." *Semmler et al.* clearly fails to disclose these aspects of claim 22.

In the grounds for rejection, it is alleged that *Semmler et al.* discloses a second passage that extends perpendicular to the first section and the second section wherein the Examiner has interpreted the term "perpendicular" as the equivalent to substantially perpendicular based on the Examiner's interpretation of the specification. It is specifically traversed that *Semmler et al.* discloses a second passage extending substantially perpendicular to a first section and second section. In fact, *Semmler et al.* clearly fails to disclose any such construction, as evident from annotated Figure 4 of *Semmler et al.* reproduced below:

FIG 4



As evident from the above, and as indicated by angular relationships between lines A and B, the second passage (42) does not extend substantially perpendicular to the first and second parallel sections (24,26). In other words, the angle  $\theta$  is not substantially  $90^\circ$ . In fact the angle in *Semmler et al.* is  $122^\circ$ . This is a 25 percent different from  $90^\circ$ . Applicants respectfully traverse the Examiner's assertion that  $122^\circ$  could be construed as substantially perpendicular. In order to make a rejection under 35 U.S.C. §102, i.e., an anticipation rejection, each and every element as set forth in the claim must be expressly or inherently described in a single prior art reference. Therefore, claim 22 is distinguishable over *Semmler et al.*

Claim 23 requires, *inter alia*, "the second section is defined by the first wall and a first portion of a second wall; and second passage is defined by a second

portion of the second wall and a second portion of the third wall; wherein the second wall is not connected to the second portion of the third wall."

It is alleged in the Official Action that the claim does require the web, or second wall, to not be connected to the second portion of the third wall. Claim 23 now recites that the second wall is not connected to the second portion of the third wall.

Thus, *Semmler et al.* fails to anticipate claim 23.

The dependent claims are allowable for at least the reasons discussed above as well as for the individual features they recite.

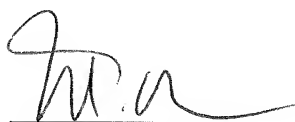
## **CONCLUSION**

From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

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